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EXAMINER
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5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/663,306	ZHONG ET AL.	
	Examiner	Art Unit	
	Karen Cochrane Carlson, Ph.D.	1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-85* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Nucleic Acids

1. Claims 1, 2, 4, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 536, subclass 23.1.
2. Claims 1, 2, 4, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 536, subclass 23.1.
3. Claims 1, 2, 4, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 536, subclass 23.1.
4. Claims 1, 2, 4, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 536, subclass 23.1.
5. Claims 1, 3, 4, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 536, subclass 23.1.
6. Claims 1, 2, 5-8, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
7. Claims 1, 2, 5-8, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
8. Claims 1, 2, 5-8, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
9. Claims 1, 2, 5-8, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
10. Claims 1, 3, 5-8,12, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
11. Claims 1, 5, 9, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.

12. Claims 1, 5, 10, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.
13. Claims 1, 5, 11, and 13-22, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 536, subclass 23.1.

Inventions 1-13 are drawn to a variety of nucleic acids encoding chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 1-13 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Transcription Factors

14. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 350.
15. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 350.
16. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 350.
17. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 350.
18. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 350.
19. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
20. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
21. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.

22. Claims 23, 25, and 26, drawn a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
23. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
24. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
25. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.
26. Claims 23, 25, and 26, drawn to a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 350.

Inventions 14-26 are drawn to a variety of chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 14-26 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Antibodies

27. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 387.1.
28. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 387.1.
29. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 387.1.
30. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 387.1.
31. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 530, subclass 387.1.
32. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction

pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

33. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

34. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

35. Claim 24, drawn an antibody against a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

36. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

37. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

38. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

39. Claim 24, drawn to an antibody against a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 530, subclass 387.1.

Inventions 27-39 are drawn to a variety of antibodies against chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 27-39 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Method, using cell comprising nucleic acid encoding chimeric transcription factor; assay mRNA levels

40. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

41. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain

containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

42. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

43. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

44. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

45. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

46. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

47. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

48. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

49. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

50. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a

chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

51. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

52. Claims 27-30, 34-36, 39-43, and 46-48, drawn to a method comprising measuring mRNA levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 6.

Inventions 40-52 are drawn to a variety of methods assaying various mRNAs under the control of a chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 40-52 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Method, using cell comprising nucleic acid encoding chimeric transcription factor; assay protein levels

53. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 7.1.

54. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 7.1.

55. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 7.1.

56. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 7.1.

57. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 6.

58. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

59. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

60. Claims 227-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

61. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

62. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

63. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

64. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

65. Claims 27-29, 34-36, 39-41, 43, 46-48, drawn to a method comprising measuring protein levels of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding

domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 7.1.

Inventions 53-65 are drawn to a variety of methods assaying various protein levels under the control of a chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 53-65 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Method, using cell comprising nucleic acid encoding chimeric transcription factor; assaying enzymatic activities

66. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 183.

67. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48 drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 183.

68. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 183.

69. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 183.

70. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 183.

71. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48,drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

72. Claims 27-29, 32- 36, 39-41, 44, 45, 47, 48,drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an

activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

73. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

74. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

75. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

76. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

77. Claims27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

78. Claims 27-29, 32-36, 39-41, 44, 45, 47, 48, drawn to a method comprising measuring enzymatic activities resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 183.

Inventions 66-78 are drawn to a variety of methods assaying various enzymatic activities expressed under the control of a chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 66-78 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

Method, using cell comprising nucleic acid encoding chimeric transcription factor; assessing cell phenotype

79. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the

transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 69.1.

80. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 69.1.

81. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 69.1.

82. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 69.1.

83. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class 435, subclass 69.1.

84. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

85. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

86. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

87. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a

synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

88. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

89. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

90. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

91. Claims 27-29, 32-41, 49, 50, drawn to a method comprising assessing cell phenotype resulting from expression of an endogenous gene under the transcriptional control of a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class 435, subclass 69.1.

Inventions 78-91 are drawn to a variety of methods assaying various cell phenotypes expressed under the control of a chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 78-91 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

92. Claims 51-61, drawn to nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class 536, subclass 23.1.

93. Claims 62-64, drawn to a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class 530, subclass 350.

94. Claim 65, drawn to an antibody against a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class 530, subclass 387.1.

95. Claim 66, drawn to a method comprising stimulating a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class 514, subclass 2.

96. Claims 67 and 68, drawn to a method comprising measuring receptor activity in a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class 435, subclass 7.1.

97. Claims 69-71, drawn to nucleic acid encoding a chimeric transcription factor comprising a constitutively active domain, a synthetic DNA binding domain that activates endogenous gene transcription, and a membrane anchoring domain classified in class 536, subclass 23.1.

98. Claims 72 and 73, drawn to a method comprising measuring gene expression in a cell comprising a nucleic acid encoding a chimeric transcription factor comprising a constitutively active domain, a synthetic DNA binding domain that activates endogenous gene transcription, and a membrane anchoring domain classified in class 435, subclass 6.

99. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class / subclass unknown.

100. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class / subclass unknown.

101. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class / subclass unknown.

102. Claims 74-77, drawn to a compound discovered in amethod comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class / subclass unknown.

103. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one non-zinc finger polypeptide, classified in class / subclass unknown.

104. Claims 74 and 75, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to Jak-STAT signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

105. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising

an activation domain responsive to MAP kinase signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

106. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to phosphatidyl inositol/Ca^{++} signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

107. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to cyclic nucleotide signal transduction pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

108. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain that is a ligand binding domain and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

109. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a cytokine receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

110. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a growth factor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

111. Claims 74-77, drawn to a compound discovered in a method comprising use of a cell comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain that is responsive to a G-protein coupled receptor signal pathway and a synthetic DNA binding domain containing at least one modified zinc finger polypeptide, classified in class / subclass unknown.

112. Claims 78-81, drawn to a a compound discovered in a method comprising use of a cell l comprising nucleic acid encoding a chimeric transcription factor comprising an activation domain responsive to signal transduction from an extracellular ligand and a synthetic DNA binding domain that activates receptor gene transcription, classified in class/subclass unknown.

113. Claims 82-85, drawn to a compound discovered in a method comprising using a cell comprising a nucleic acid encoding a chimeric transcription factor comprising a constitutively active domain, a synthetic DNA binding domain that activates endogenous gene transcription, and a membrane anchoring domain classified in class/subclass unknown

Inventions 99-113 are drawn to a variety of compounds used/discovered in the methods comprising use of a cell comprising a nucleic acid encoding a chimeric transcription factors having differing structures and differing functions. Therefore, if any one of Inventions 99-111 is elected, the examination of the invention will be carried out only in-so-far as it pertains to the subject matter of the elected invention.

The inventions are distinct, each from the other because of the following reasons:

The nucleic acids of Inventions 1-13 and 92 are related to the protein of Invention 14-26 and 93, respectively, by virtue of encoding same. The DNA molecule has utility for the recombinant production of the protein in a host cell, as recited in the Claims of Invention I. Although the DNA molecule and protein are related since the DNA encodes the specifically claimed protein, they are distinct inventions because the protein product can be made by another and materially different process, such as by synthetic peptide synthesis or purification from the natural source. Further, the DNA may be used for processes other than the production of the protein, such as nucleic acid hybridization assay.

The proteins of Inventions 14-26 and 93 are related to the antibodies of Inventions 27-39 and 94, respectively, by virtue of being the cognate antigen, necessary for the production of antibodies. Although the protein and antibody are related due to the necessary stearic complementarity of the two, they are distinct Inventions because the protein can be used in another and materially different process from the use for the production of the antibody, such as in a pharmaceutical composition in its own right, or to assay or purify the natural ligand of the protein (if the protein is itself a receptor), or in assays for the identification of agonists or antagonists of the receptor protein.

The nucleic acid of Inventions 1-13 and 92 and the antibody of Inventions 27-39 and 94, respectively, are related by virtue of the protein that is encoded by the nucleic acid and necessary for the production of the antibody. However, the nucleic acid itself is not necessary for antibody production and both are wholly different compounds having different compositions and functions. Therefore, these Inventions are distinct.

The nucleic acids of Inventions 1-13, 92, and 97, the transcription factors of Inventions 14-26 and 93, the antibodies of Invention 27-39, and 94, and the compounds of Inventions 99-113 differ in structure and function one from the other. Therefore, Inventions 1-13, 92, and 97, 14-26 and 93, 27-39, and 94, and 99-113 are patentably distinct one from the other.

The nucleic acids (in the cells) of Inventions 1-13, and the methods of Inventions 40-52, respectively, the methods of 53-65, respectively, the methods of Inventions 66-78, respectively, or the methods of Inventions 79-91, respectively, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in any of the methods of Inventions 40-52, respectively, the methods of 53-65, respectively, the methods of Inventions 66-78, respectively, or the methods of Inventions 79-91, respectively, or in the recombinant production of the encoded transcription factor.

The product of Inventions 14-39, 92, 93, 94, 97, and 99-113 are not used in the method of Invention 40-91. Therefore, Inventions 14-39, 92, 93, 94, 97, and 99-113 are patentably distinct from Inventions 40-91.

The methods of Inventions 40-52, respectively, the methods of 53-65, respectively, the methods of Inventions 66-78, respectively, or the methods of Inventions 79-91, respectively, are related in that each method requires the use of nucleic acid in the cell of Invention I-13, respectively. However, the steps and end points of the methods are wholly different and therefore Inventions 40-52, respectively, the methods of 53-65, respectively, the methods of Inventions 66-78, respectively, or the methods of Inventions 79-91, respectively, are patentably distinct.

The transcription factor of Invention 93 and the method of Invention 95 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in the production antibody.

The nucleic acids (in the cells) of Invention 92 and the method of Invention 96 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in the recombinant production of the encoded transcription factor.

The product of Inventions 1-39, 92, 94, 97, and 99-113 are not used in the method of Invention 95. Therefore, Inventions 1-39, 92, 94, 97, and 99-113 are patentably distinct from Invention 95.

The product of Inventions 1-39, 93, 94, 97, and 99-113 are not used in the method of Invention 96. Therefore, Inventions 1-39, 93, 94, 97, and 99-113 are patentably distinct from Invention 96.

The nucleic acids (in the cells) of Invention 97 and the method of Invention 98 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in the recombinant production of the encoded transcription factor.

The product of Inventions 1-39, 92-94, and 99-113 are not used in the method of Invention 98. Therefore, Inventions 1-39, 92-94, and 99-113 are patentably distinct from Invention 98.

The methods of Inventions 40-91, Invention 95, Invention 96, and Invention 98 require different products and steps and have different endpoints. Therefore, Inventions 40-91, Invention 95, Invention 96, and Invention 98 are patentably distinct.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 703-308-0034. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 703-308-2329. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

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March 4, 2002

Karen Cochrane Carlson PhD

KAREN COCHRANE CARLSON, PH.D
PRIMARY EXAMINER